

SUMMARY OF THE NATIONAL DATABASE COMMITTEE MEETING DECEMBER 15, 1999

The National Database Committee of the National Environmental Laboratory Accreditation Conference (NELAC) met on Wednesday, December 15, 1999, at 8 a.m. Eastern Standard Time (EST) as part of the Fifth NELAC Interim Meeting in Washington, DC. The meeting was led by its chair, Mr. Matthew Caruso of the New York State Department of Health. A list of action items is given in Attachment A. A list of participants is given in Attachment B. *The purpose of the meeting was to review current database design and to solicit examples of types of information participants envisioned needing from the database.*

INTRODUCTION

Mr. Caruso welcomed participants, noted the groundrules for meeting discussion, and introduced Mr. Bruce Lane of TPMC to review the current database design and to review potential uses of the database.

DATABASE DESIGN

Mr. Lane distributed selected pages from the Draft Logical Database Design (see Attachment C) which summarizes information flow, lists information requirements and the data dictionary, and depicts the relationships between various data tables. He reviewed the major types of information to be housed, on: 1) NELAP accrediting authorities, 2) NELAP-accredited laboratories, and 3) third-party assessors.

Questions and Comments

There were questions and comments on various general issues relevant to the database contents and potential uses. Using currently available database tools for an Oracle database, it was noted that rapid development and testing is planned, and that having a tested, functional, national database operational by the Sixth NELAC Annual Meeting, at which accredited laboratories will be announced, appears to be a challenging but feasible goal.

Mr. Lane noted that data will be supplied by NELAP accrediting authorities either via upload using the well-known "file transfer protocol" (FTP) or by secure web-based data inputs. Information will be presented on a publically accessible world wide web site. Various reports and queries will be designed to respond to anticipated needs of the NELAC community, and that user feedback from the web-site will permit user interactions and assist with future development of the capabilities and utility of the database. As part of this effort, Mr. Caruso distributed paper and asked participants to thoughtfully assist with the reporting function of the database by supplying scenarios specifying a user's role and the type of question they would like answered. At the end of this session, these scenarios were collected by Mr. Lane to assist in his efforts.

Several questions related to planned mechanisms for verifying the correctness of the posted data. Mr. Lane noted that all data are to be supplied by the primary NELAC accrediting authorities,

that changes to the database will automatically trigger appropriate E-mails to the supplying accrediting authority and to the secondary accrediting authorities.

Other questions related to the possibility of using the NELAC national database to answer “historical” questions (e.g., “was laboratory XYZ NELAC-accredited on a specified date”). The committee noted that the current design could be readily expanded to accommodate such information, however EPA has specified that it will fund only a “snapshot” of current information at this time. It was also noted that such historical information should be readily available from the accrediting authorities as part of their own recordkeeping requirements.

ADJOURNMENT

The meeting was adjourned by the chair.

ACTION ITEMS
NATIONAL DATABASE COMMITTEE MEETING
DECEMBER 15, 1999

Item No.	Action	Date to be Completed
1.	No action items were assigned.	

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NATIONAL DATABASE COMMITTEE MEETING
DECEMBER 15, 1999

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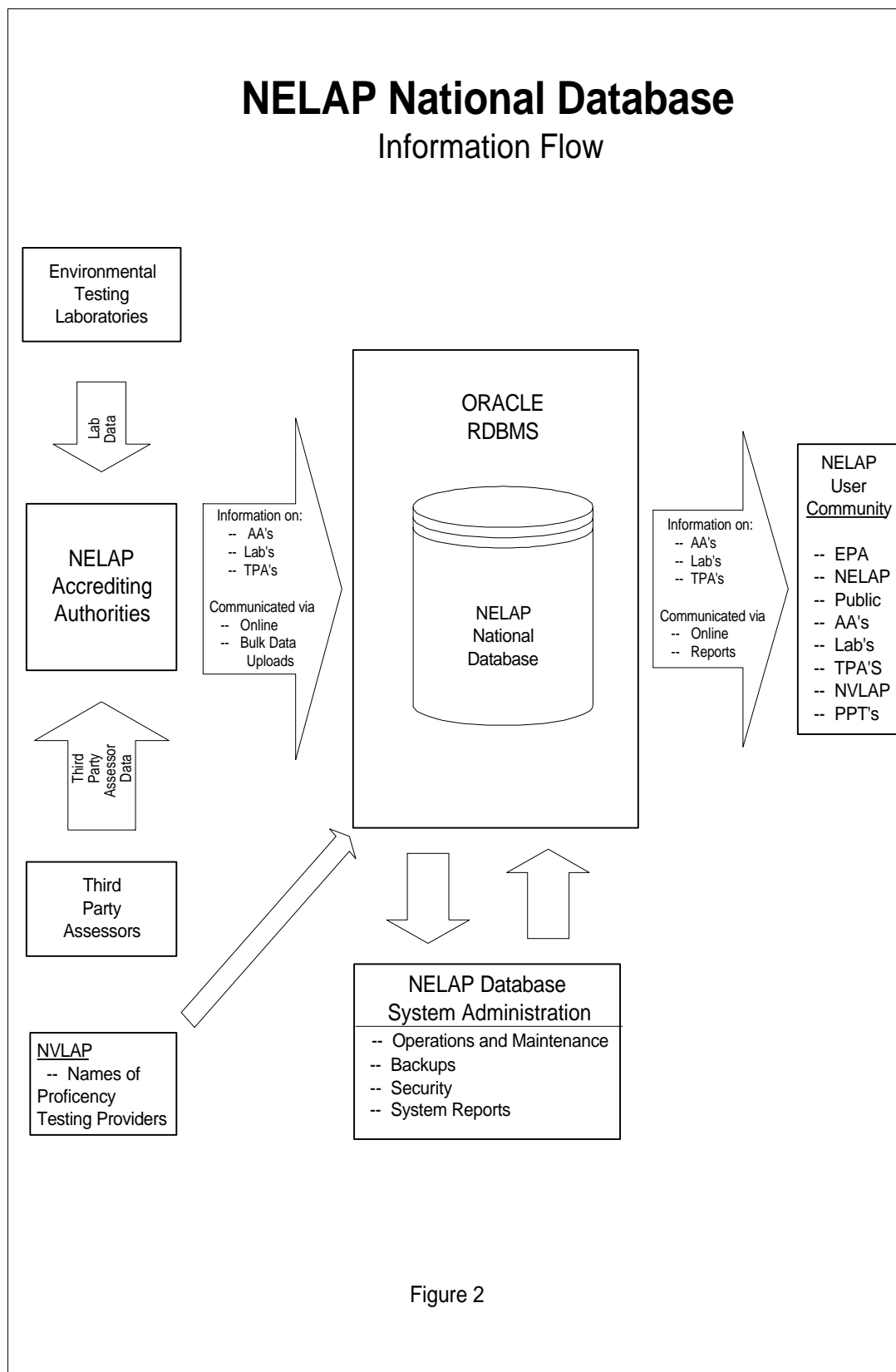


Figure 2

NELAP NATIONAL DATABASE

INFORMATION REQUIREMENTS BY FUNCTIONAL AREA

1. INFORMATION ABOUT ACCREDITING AUTHORITIES ("AA"s)

General AA Identification Information

Basic AA Contact Information

AA Name Information

AA ID

AA Name

Mailing Address Information

Street Address

Street1

Street2

Street3

City

State/Territory

Zip Code

Zip + 4

PO Box Address

PO Box Number

City

State/Territory

Zip Code

Zip + 4

Electronic Contact Information

Phone Number

Area Code

Exchange

Number

Extension

Facsimile Number

Area Code

Exchange

Number

Email Address

URL to AA WWW Home Page

AA Personal Contact Information

Primary Point of Contact Info

Individual Name Information

First Name

Middle Initial

Last Name

Suffix

Title/Position

Contact Information

Telephone Number

Area Code

Exchange

Number

Extension

Facsimile

Area Code

Exchange

Number

Email Address

Lab Accreditation Manager Information

Individual Name Information

First Name

Middle Initial

Last Name

Suffix

Title/Position

Contact Information

Telephone

Area Code

Exchange

Number

Extension

Facsimile

Area Code

Exchange

Number

Email Address

Quality Officer Information

Individual Name Information

First Name

Middle Initial

Last Name

Suffix

Title/Position

Contact Information

Telephone

Area Code

Exchange

Number

Extension

Facsimile

Area Code

Exchange

Number

Email Address

AA Recognition Status

Effective Date of Recognition

EPA Region

AA Time Zone

AA Hours of Operation

Comments (Text material provided by AA)

AA Field of Testing Recognition

AA ID

Field of Testing Information

Program

Scientific Discipline

Matrix

Method

Analyte Group

Analyte

Recognition Status

Effective Date of Recognition

2. INFORMATION ABOUT NELAP ACCREDITED LABORATORIES

General Information on Environmental Testing Laboratories

Basic Laboratory Contact Information

Laboratory Name Information

Laboratory Identification

Laboratory Name

Lab Address Information

Mailing Address Information

Street Address

Street1

Street2

Street3

City

State/Territory

Zip Code

Zip + 4

PO Box Address

PO Box Number

City

State/Territory

Zip Code

Zip + 4

Lab Electronic Contact Information

Phone Number

Area Code

Exchange

Number

Extension

Facsimile Number

Area Code

Exchange

Number

E-mail Address

URL to Lab WWW Home Page

Lab Personal Contact Information

Primary Point of Contact Information

Individual Name Information

First Name

Middle Initial

Last Name

Suffix

Title/Position

Contact Information

Telephone Number

Area Code

Exchange

Number

Extension

Facsimile

Area Code

Exchange

Number

E-mail Address

Technical Director Information

Individual Name Information

First Name

Middle Initial

Last Name

Suffix

Title/Position
Contact Information
Telephone Number
Area Code
Exchange
Number
Extension
Facsimile
Area Code
Exchange
Number
E-mail Address
Laboratory Owner Information
Lab Owner Name & ID Information
Laboratory Owner's Name
Laboratory Owner ID Information
Owner Mailing Address Information
Street Address
Street1
Street2
Street3
City
State/Territory
Zip Code
Zip + 4
PO Box Address
PO Box Number
City
State/Territory
Zip Code
Zip + 4
Owner Electronic Contact Information
Phone Number
Area Code
Exchange
Number
Extension
Facsimile Number
Area Code
Exchange
Number
E-mail Address
URL to Owner WWW Home Page
Laboratory Type
Laboratory Status
Effective Date of Laboratory Status
Accept Outside Work (Y/N)
Hours of Operation
Description of Geographic Location of Laboratory
Date of On-site Assessment
Database Update Date

Specific Laboratory Accreditations by Fields of Test
Laboratory ID
Accrediting Authority (AA) Info
AA Name/ID
AA Status (Primary/Secondary)
Field of Testing Information

Program
Scientific Discipline
Matrix
Method
Analyte Group
Analyte
FOT Accreditation Status (Approved/Interim)
Effective Date of FOT Accreditation
FOT Posting Date
FOT Expiration Date

3. INFORMATION ABOUT THIRD PARTY ASSESSORS "TPA"s)

Basic TPA Contact Information

TPA Name Information

TPA ID

TPA Name

Mailing Address Information

Street Address

Street1

Street2

Street3

City

State/Territory

Zip Code

Zip + 4

PO Box Address

PO Box Number

City

State/Territory

Zip Code

Zip + 4

Electronic Contact Information

Phone Number

Area Code

Exchange

Number

Extension

Facsimile Number

Area Code

Exchange

Number

Email Address

URL to TPA WWW Home Page

Personal Point of Contact Info

Individual Name Information

First Name

Middle Initial

Last Name

Suffix

Title/Position

Contact Information

Telephone Number

Area Code

Exchange

Number

Extension

Facsimile
Area Code
Exchange
Number
Email Address
Start Date
Expiration Date
TPA Comments

4. INFORMATION ABOUT PROVIDERS OF PROFICIENCY TESTING

URL link to NVLAP WWW Home Page

NELAP NATIONAL DATABASE

LOGICAL DATABASE DESIGN

Entities and Attributes

Entities			
Organizations	Organization Types	Contacts	Contact Types
Business Hours	FOT Accreditations	FOTs	Programs
Methods	Analytes	Scientific Disciplines	Matrices
Analyte groups	Zip Codes	Laboratory Type	NVLAP Link
AA-TPA Linking Table			

Entity	Attributes
Organizations	Org ID Org_Name Org_Abbrev Insert_Dt Update_Dt OrgStatus OrgStatusEffectiveDt OrgStatusExpDt Street_Addr1 Street_Addr2 Street_Addr3 Street_City Street_St POBox_Number POBox_City POBox_St Tele_Main Tele_Fax Email_Addr URL OrgTimeZone EPA_Region LabOwner LabOutsideWork LabGeogDesc LabOnsiteAssessDt LabDBUpdateDt Comments
Organization Types	Organization Type ID Organization Type

Entity	Attributes
Contacts	Contact ID Insert_Dt Update_Dt Prefix Firstname MI Lastname Suffix Title Email Tele_Off Tele_Mobile Tele_Pgr Tele_Fax
Contact Types	Contact Type ID Contact Type
Business Hours	Bus_Hr ID Insert_Dt Update_Dt Day Start_TM End_TM
Zip Codes	Zip ID Zip Code Zip Code+Four City State
Laboratory Types	LabType ID Laboratory type
FOT Accreditations	FOT Accred ID Accred_Type Insert_Dt Update_Dt Lab_ID AA_ID AA_Type AccredStatus FOT_Eff_Dt FOT_Exp_Dt FOT_Posting_Dt
FOTs	FOT ID Insert_date Update_date
Programs	Program ID ProgName
Methods	Method ID MethodName

Entity	Attributes
Analytes	Analyte ID AnalyteName
Scientific Disciplines	SciDiscipline ID SciDiscName
Matrices	Matrix ID MatrixName
Analyte Groups	AnalyteGrp ID AnalyteGrpName
NVLAP Link	WWW URL Link to NVLAP
AA-TPA Linking Table	Linking table to handle many-to-many relationship of AAs and TPAS.

**NELAP NATIONAL DATABASE
Data Dictionary**

Data Element	Data type (length)	Description
ORGANIZATIONS		
Org ID	Character(13)	Organization identification number.
Org_Name	Character (60)	Name of the organization
Org_Abbrev	Character (10)	Common acronym or abbreviation (if any) for the organization.
Insert_Dt	Date	Date the record was added to the database.
Update_Dt	Date	Date the record was updated.
OrgStatus	Character (1)	Current status value for the organization.
OrgStatusEffectiveDt	Date	Date of the most recent status.
OrgStatusExpDt	Date	Status expiration date.
Street_Addr1	Character (32)	First line of street address.
Street_Addr2	Character (32)	Second line of street address.
Street_Addr3	Character (32)	Third line of street address.
Street_City	Character (48)	City name.
Street_St	Character (2)	State/territory postal abbreviation.
POBox_Number	Number (10)	P.O. Box number.
POBox_City	Character (48)	City name.
POBox_St	Character (2)	State/territory postal abbreviation.
Tele_Main	Number (14)	Main area code + phone number for the organization.
Tele_Fax	Number (14)	Main area code and fax number for the organization.
Email_Addr	Character (48)	Main organization internet email address.
URL	Character (48)	Internet home page address.
OrgTimeZone	Character (1)	Organization's time zone (E, C, M, P, A, or H).

Data Element	Data type (length)	Description
EPA_Region	Number (2)	Organization's EPA region (1-10).
LabOwner ID (fk)	Character (13)	Provides information about a laboratory's owner. Foreign key to the Organizations table.
LabOutsideWork	Character (1)	Flag indicating whether or not the lab accepts outside work (Y/N).
LabGeogDesc	Character (128)	Text description of laboratory's geographic location.
LabOnsiteAssessDt	Date	Date of laboratory's onsite assessment.
LabDBUpdateDt	Date	Date an accrediting authority last updated or added to a laboratory's information on the database.
Comments	Character (300)	Text field to allow third party assessors to provide miscellaneous information such as hours, services, etc., and permits AAs to describe fee arrangements, testing programs, special requirements, etc.
ORGANIZATION TYPES		
Organization Type ID	Number (2)	Organization type ID number.
Organization Type	Character (32)	Identifies the organization type. Allowable values: "Accrediting authority," "Laboratory," "Third party assessor," "laboratory owner."
CONTACTS		
Contact ID	Number (10)	Contact ID number.
Insert_Dt	Date	Date the contact information was added to the database.
Update_Dt	Date	Date the contact information was updated.

Data Element	Data type (length)	Description
Prefix	Character (5)	Name prefix (Mr., Ms., Mrs. Dr., etc.).
Firstname	Character (15)	Contact's first name.
MI	Character (1)	Contact's middle initial.
Lastname	Character (30)	Contact's last name.
Suffix	Character (5)	Name suffix (Jr., Sr., PhD., etc.).
Title	Character (48)	Contact's title or position.
Email	Character (48)	Contact's internet email address.
Tele_Off	Number (14)	Contact's office phone number.
Tele_Mobile	Number (10)	Contact's cellular phone number.
Tele_Pgr	Number (10)	Contact's pager number.
Tele_Fax	Number (14)	Contact's facsimile number.
CONTACT TYPES		
Contact Type ID	Number (2)	Contact type ID number.
Contact Type	Character (40)	Description of the contact type. Allowable values: "Primary Contact" "Laboratory Technical Director" "AA Laboratory Accreditation Manager" "AA Quality Officer" "Laboratory Owner"
BUSINESS HOURS		
Bus_Hrs ID	Number (10)	Business hours ID number.
Insert_Dt	Date	Date the time information was added to the database.
Update_Dt	Date	Date the time information was updated.
Day	Number (1)	Date code. Allowable values are 1-7, starting with Monday.
Start_TM	Number (4)	Starting time.

Data Element	Data type (length)	Description
End_TM	Number (4)	Closing time.
ZIP CODES		
Zip ID	Number (10)	Zip code ID number.
Zip Code	Number (5)	5 digit postal zip code.
Zip Code+Four	Number (4)	4 digit postal zip code extension.
City	Character (48)	City Name
State	Character (2)	2 character state abbreviation.
LABORATORY TYPES		
LabType ID	Number (10)	Lab type ID number.
Laboratory Type	Character (32)	Description of laboratory type. Possible values include Commercial, Federal, Hospital or health care, State, Academic institutes, Public water systems, Public wastewater systems, Industrial, and Mobile. (NELAC Standards, 4.1.7). Users will also be able to enter additional lab types.
FOT ACCREDITATIONS		
FOT Accred ID	Number (10)	Field of testing (FOT) accreditation ID number.
Accred_Type	Character (1)	Indicates whether the FOT record is for (1) an accrediting authority which has been recognized by NELAP to accredit labs for the specified FOT (accred_type = "A"), or (2) for a lab which has been accredited by an AA to conduct environmental testing in connection with the specified FOT (accred_type = "L").
Insert_Dt	Date	Date the record was added to the database.
Update_Dt	Date	Date of the last update.

Data Element	Data type (length)	Description
Lab_ID (fk)	Number (10)	Lab identifier if the record is for a lab FOT accreditation. Null value if the record is for an AA recognition for a field of testing.
AA_ID (fk)	Number (10)	AA identifier. This field will always be populated since either the record identifies a lab FOT or an AA recognition for a field of testing.
AA_Type	Character (1)	For lab FOT accreditations, this field indicates whether the accrediting authority is a primary AA ("P"), or a secondary AA accrediting the lab through reciprocity ("S").
AccredStatus	Character (1)	For lab FOT accreditations, this field indicates the status of the accreditation. Allowable values are "A" (approved) and "I" (interim).
FOT_Eff_Dt	Date	Effective date of the lab FOT accreditation or the AA FOT recognition.
FOT_Exp_Dt	Date	Expiration date of the lab FOT accreditation.
FOT_Posting_Dt	Date	Date that the AA posted the lab FOT information on the database.
FOTS		
FOT ID	Number (10)	Field of testing ID number.
Insert_date	Date	Date the particular FOT was added to the system.
Update_date	Date	Date the FOT was updated.
PROGRAMS		
Program ID	Number (10)	Program identification number.

Data Element	Data type (length)	Description
ProgName	Character (8)	Identifies those EPA statutes and regulations related to the field of testing. Allowable values are: "CAA" (Clean Air Act), "CERCLA" (Comprehensive Environmental Response, Compensation and Liability Act), "FIFRA" (Federal Insecticide, Fungicide, and Rodenticide Act), "CWA" (Clean Water Act), "RCRA" (Resource Conservation and Recovery Act), "SDWA" (Safe Drinking Water Act), and "TSCA" (Toxic Substance Control Act).
METHODS		
Method ID	Number (10)	Method identification number.
MethodName	Character (128)	Identifies the particular testing method for which the lab is being accredited.
ANALYTES		
Analyte ID	Number (10)	Analyte identification number.
AnalyteName	Character (48)	Identifies the substance for which the lab is testing and being accredited.
SCIENTIFIC DISCIPLINES		
SciDiscipline ID	Number (10)	Scientific discipline identification number.

Data Element	Data type (length)	Description
SciDiscName	Character (30)	Identifies the scientific disciplines related to the field of testing. Allowable values are organic chemistry, inorganic chemistry, whole effluent toxicity, microbiology, radiochemistry, and microscopy.
MATRICES		
Matrix ID	Number (10)	Matrix identification number.
MatrixName	Character (30)	Identifies the substance containing the analyte. Allowable values are aqueous, drinking water, saline/estuarine, non-aqueous liquid, biological tissue, chemical waste, air samples, and solids.
ANALYTE GROUPS		
AnalyteGrp ID	Number (10)	Analyte group identification number.
AnalyteGrpName	Character (48)	Groups of analytes possessing certain common characteristics.
NVLAP LINK		
WWW URL Link to NVLAP	Character (48)	Internet universal resource locator (URL) link to NVLAP home page.
AA-TPA LINKING TABLE		This table is designed to represent the many-to-many relationship between accrediting authorities and third party assessors. The table will contain no attributes, only paired foreign keys linking AAs and TPAs.

